Notice of Allowability	Application No.	Applicant(s)	
	09/987,721	LEWIS ET AL.	
	Examiner	Art Unit	
	William K Cheung	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Response*.

2. ☒ The allowed claim(s) is/are *1-42*.

3. ☐ The drawings filed on _____ are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

 * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

 Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. In view of applicants' argument filed March 5, 2004, the rejection of claims 1-3, 5, 6, 8-18 under 35 U.S.C. 102(b) as being anticipated by Hwa (US 3,497,482) is withdrawn. Further, the objection of claims 4, 7, 19-23 as being dependent upon a rejected base claim is withdrawn.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney John T. Callahan (Registration No. 32,607) on April 15, 2004.

3. Cancel non-elected claims 43-66.

Allowances

4. Claims 1-42 are allowed.

5. The following is an examiner's statement of reasons for allowance:

As of the date of this office action, the examiner has not located or identified any reference that can be used singularly or in combination with another reference including the closest prior art of Hwa (US 3,497,482) and Bowers et al. (US 5,648,442) to render the present invention anticipated or obvious to one of ordinary skill in the art. Hwa is silent on a process which comprises the steps of forming a monomer seed mixture.

The invention of claims 1-42 relates to an ***emulsion polymerization process*** *comprising the following steps:*

a) ***providing a mixture of ethylenically unsaturated monomers*** *including water insoluble monomer;*

b) ***dispersing the mixture of ethylenically unsaturated monomers*** *into an* ***aqueous liquid*** *to form an oil-in-water emulsion;*

c) ***adding*** *to the oil-in-water emulsion* ***an ammonium phosphate ester zwitterionic monomer;***

d) ***adding a water-soluble radical initiator*** *to the oil-in water emulsion;*

e) ***polymerizing the monomers*** *to form a product latex of polymer having a polymer* ***solids concentration in the product of at least 20% by weight.***

The closest prior art Hwa (col. 7, line 1-16) in example 10 discloses an emulsion polymerization process comprising the steps of providing a mixture of ethylenically unsaturated monomers which includes a water insoluble monomer, the monomer obtained in example 4. However, the examiner concurs with applicants' argument filed on March 5, 2004 that Hwa is silent on a polymerization process comprising an ammonium phosphate ester zwitterionic monomer. Therefore, it would not be apparent to one of ordinary skill in art to use the polymerization process of Hwa to obtain the polymerization process invention of claims 1-23 which comprises an ammonium phosphate ester zwitterionic monomer. Regarding the invention of claims 24-42, Hwa is silent on a process which comprises the steps of forming a monomer seed mixture. Therefore, it would not be apparent to one of ordinary skill in art to use the polymerization process teachings of Hwa to obtain the polymerization process invention of claims 24-42.

Bowers et al. (col. 33 to col. 50) disclose a solution polymerization process comprising the copolymerization of an ammonium phosphate ester zwitterionic monomer. However, Bowers et al. are completely silent on an oil-in water emulsion polymerization process. Therefore, it would not be apparent to one of ordinary skill in art

to use solution polymerization teachings in Bowers et al. to obtain the oil-in water emulsion polymerization process invention of claims 1-42.

Because the polymerization process of Bowers et al. and Hwa are pertained to different polymerization medium, there is not motivation to combine the teachings of Bowers et al. and Hwa to obtain the invention of claims 1-42. In view of the reasons set forth above, the invention of claims 1-42 is allowed.

In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, and to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571)

272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William K. Cheung

Patent Examiner

April 15, 2004